

chain nodes :

11 18 19 20 21 22 23 24 25 26 27 28 34 35 36 37 38 39 40 41 42 43  
44 45 46

ring nodes :

1 2 3 4 5 6 7 8 9 10 12 13 14 15 16 17

chain bonds :

1-35 2-36 3-37 4-38 7-46 8-11 9-40 10-39 11-34 13-22 13-45 14-21 14-44 15-20  
15-43 16-19 16-42 17-18 17-41 23-26 24-25 26-27 26-28

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-10 7-8 8-9 9-10 12-13 12-17 13-14 14-15  
15-16 16-17

exact/norm bonds :

5-7 6-10 7-8 7-46 8-9 8-11 9-10 11-34 12-13 12-17 13-14 13-22 14-15 14-21  
15-16 15-20 16-17 16-19 23-26 24-25 26-27 26-28

exact bonds :

1-35 2-36 3-37 4-38 9-40 10-39 13-45 14-44 15-43 16-42 17-18 17-41

normalized bonds :

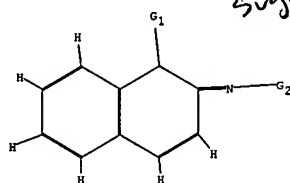
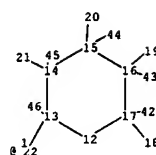
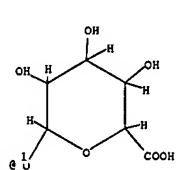
1-2 1-6 2-3 3-4 4-5 5-6

G1:O, [\*1]

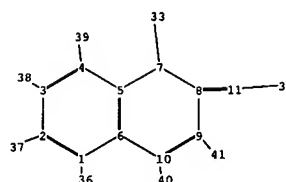
G2:OH, [\*2], [\*3]

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:CLASS  
12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:CLASS 19:CLASS 20:CLASS  
21:CLASS 22:CLASS 23:CLASS 24:CLASS 25:CLASS 26:CLASS 27:CLASS 28:CLASS 34:CLASS  
35:CLASS 36:CLASS 37:CLASS 38:CLASS 39:CLASS 40:CLASS 41:CLASS 42:CLASS 43:CLASS  
44:CLASS 45:CLASS 46:CLASS



*Sugar derivative*



chain nodes :

11 18 19 20 21 22 23 24 25 26 27 28 33 35 36 37 38 39 40 41 42 43  
44 45 46

ring nodes :

1 2 3 4 5 6 7 8 9 10 12 13 14 15 16 17

chain bonds :

1-36 2-37 3-38 4-39 7-33 8-11 9-41 10-40 11-35 13-22 13-46 14-21 14-45 15-20  
15-44 16-19 16-43 17-18 17-42 23-26 24-25 26-27 26-28

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-10 7-8 8-9 9-10 12-13 12-17 13-14 14-15  
15-16 16-17

exact/norm bonds :

5-7 6-10 7-8 7-33 8-9 8-11 9-10 11-35 12-13 12-17 13-14 13-22 14-15 14-21  
15-16 15-20 16-17 16-19 23-26 24-25 26-27 26-28

exact bonds :

1-36 2-37 3-38 4-39 9-41 10-40 13-46 14-45 15-44 16-43 17-18 17-42

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6

G1:O, [\*1]

G2:OH, [\*2], [\*3]

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:CLASS  
12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:CLASS 19:CLASS 20:CLASS  
21:CLASS 22:CLASS 23:CLASS 24:CLASS 25:CLASS 26:CLASS 27:CLASS 28:CLASS 33:CLASS  
35:CLASS 36:CLASS 37:CLASS 38:CLASS 39:CLASS 40:CLASS 41:CLASS 42:CLASS 43:CLASS  
44:CLASS 45:CLASS 46:CLASS

Uploading C:\Program Files\Stnexp\Queries\10051243a.str

L3 STRUCTURE UPLOADED

=> d l3

L3 HAS NO ANSWERS

L3 STR

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

Structure attributes must be viewed using STN Express query preparation.

=> s l3 sam

SAMPLE SEARCH INITIATED 15:25:05 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 2029 TO ITERATE

49.3% PROCESSED 1000 ITERATIONS

0 ANSWERS

INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*

BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS: 37879 TO 43281

PROJECTED ANSWERS: 0 TO 0

L4 0 SEA SSS SAM L3

=> s l3 full

FULL SEARCH INITIATED 15:25:20 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 42444 TO ITERATE

100.0% PROCESSED 42444 ITERATIONS

6 ANSWERS

SEARCH TIME: 00.00.01

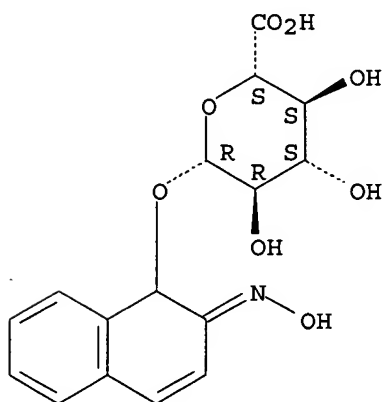
L5 6 SEA SSS FUL L3

=> d scan str

L5 6 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

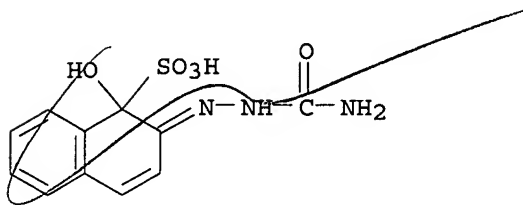
Absolute stereochemistry.

Double bond geometry unknown.



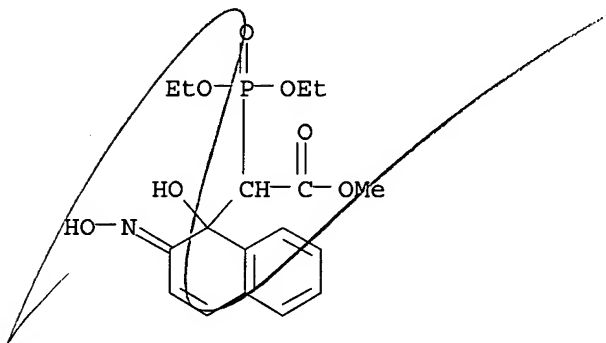
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):5

L5 6 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

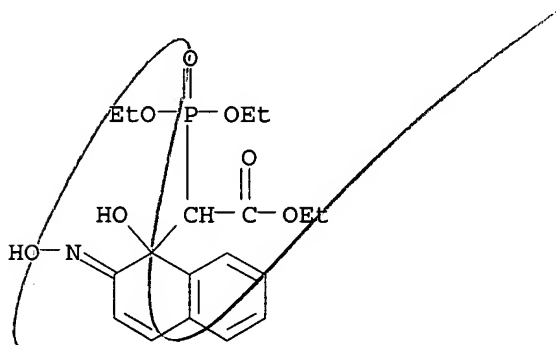


● Na

L5 6 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN



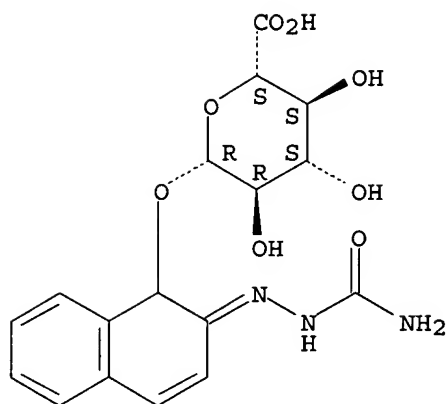
L5 6 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN



L5 6 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

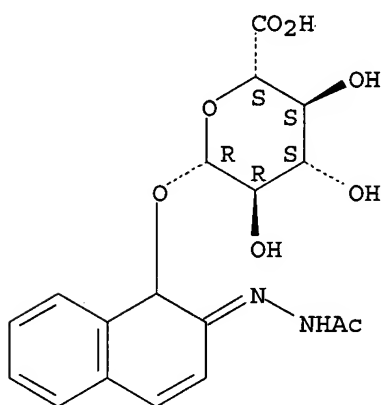
Absolute stereochemistry.  
Double bond geometry unknown.

10/035753



L5 6 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

Absolute stereochemistry.  
Double bond geometry unknown.



ALL ANSWERS HAVE BEEN SCANNED

=> file caplus

COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION

FULL ESTIMATED COST

156.68	164.13
--------	--------

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE	TOTAL
ENTRY	SESSION

CA SUBSCRIBER PRICE

0.00	-0.66
------	-------

FILE 'CAPLUS' ENTERED AT 15:26:59 ON 05 AUG 2004

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

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10/035753

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FILE COVERS 1907 - 5 Aug 2004 VOL 141 ISS 6  
FILE LAST UPDATED: 3 Aug 2004 (20040803/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d hist

(FILE 'HOME' ENTERED AT 15:20:41 ON 05 AUG 2004)

FILE 'REGISTRY' ENTERED AT 15:20:54 ON 05 AUG 2004

L1 STRUCTURE UPLOADED  
L2 1 S L1 SAM

FILE 'REGISTRY' ENTERED AT 15:24:38 ON 05 AUG 2004

L3 STRUCTURE UPLOADED  
L4 0 S L3 SAM  
L5 6 S L3 FULL

FILE 'CAPLUS' ENTERED AT 15:26:59 ON 05 AUG 2004

=> s l5 and glutamate

4 L5  
91434 GLUTAMATE  
1060 GLUTAMATES  
91806 GLUTAMATE  
(GLUTAMATE OR GLUTAMATES)  
L6 2 L5 AND GLUTAMATE

=> s l5 and neuron

4 L5  
75184 NEURON  
127129 NEURONS  
151052 NEURON  
(NEURON OR NEURONS)  
L7 0 L5 AND NEURON

=> s l5 and nmda

4 L5  
22641 NMDA  
2 NMDAS  
22641 NMDA  
(NMDA OR NMDAS)  
L8 0 L5 AND NMDA

=> d fbib abs hitstr total l6

L6 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2004 ACS on STN  
AN 2001:63831 CAPLUS  
DN 134:125960  
TI Use of  $\beta$ -naphthoquinone derivatives for making medicines having an

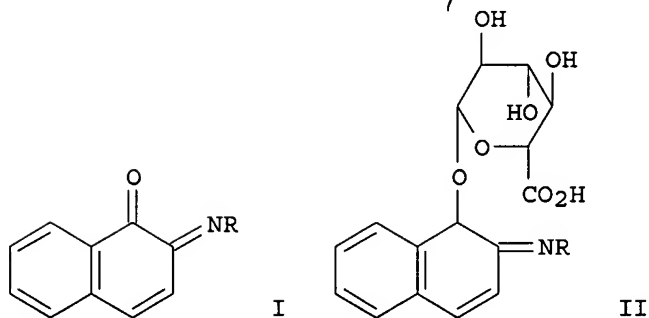
inhibiting effect on the release of **glutamate** by the brain  
 IN Israel, Maurice; Molgo, Jordi; Bloy, Christian; Mattei, Cesar  
 PA Centre National de la Recherche Scientifique (C.N.R.S.), Fr.  
 SO PCT Int. Appl., 22 pp.  
 CODEN: PIXXD2

DT Patent  
 LA French

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001005404	A1	20010125	WO 2000-FR2120	20000721
	W: JP, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	FR 2796552	A1	20010126	FR 1999-9469	A 19990721
	EP 1196176	A1	20020417	FR 1999-9469	19990721
	EP 1196176	B1	20040204	EP 2000-958596	20000721
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
				FR 1999-9469	A 19990721
				WO 2000-FR2120	W 20000721
	JP 2003504405	T2	20030204	JP 2001-510459	20000721
				FR 1999-9469	A 19990721
				WO 2000-FR2120	W 20000721
	AT 258798	E	20040215	AT 2000-958596	20000721
				FR 1999-9469	A 19990721
				WO 2000-FR2120	W 20000721
	US 2002115617	A1	20020822	US 2002-51243	20020122
				FR 1999-9469	A 19990721
				WO 2000-FR2120	A2 20000721

GI



AB  $\beta$ -Naphthoquinone derivs. are provided for making medicines with an inhibiting effect on the release of **glutamate** by the brain, the derivs. corresponding to I (R = NHCONH<sub>2</sub>, NHCOCH<sub>3</sub>, OH) and glucuronide derivs. II and their pharmaceutically acceptable acid addition salts. The invention is applicable to neurol. diseases.

IT 250585-74-1 321546-47-8 321546-48-9

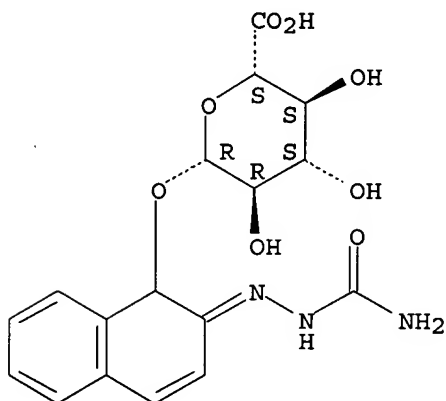
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

( $\beta$ -naphthoquinone derivs. for inhibiting release of **glutamate** in brain)

RN 250585-74-1 CAPLUS

CN  $\beta$ -D-Glucopyranosiduronic acid, 2-[(aminocarbonyl)hydrazono]-1,2-dihydro-1-naphthalenyl (9CI) (CA INDEX NAME)

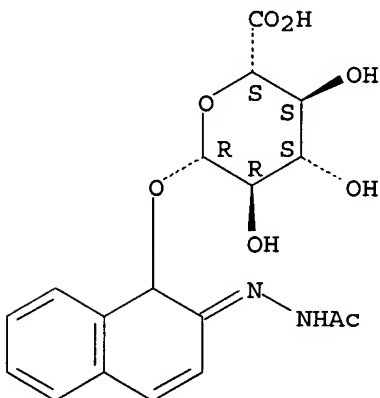
Absolute stereochemistry.  
Double bond geometry unknown.



RN 321546-47-8 CAPLUS

CN  $\beta$ -D-Glucopyranosiduronic acid, 2-(acetylhydrazono)-1,2-dihydro-1-naphthalenyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
Double bond geometry unknown.

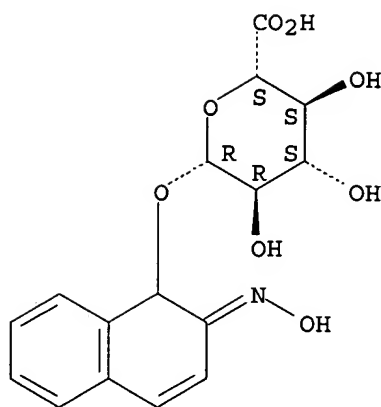


RN 321546-48-9 CAPLUS

CN  $\beta$ -D-Glucopyranosiduronic acid, 1,2-dihydro-2-(hydroxyimino)-1-naphthalenyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
Double bond geometry unknown.





RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2004 ACS on STN  
AN 1999:520285 CAPLUS  
DN 131:346372

TI Naftazone reduces **glutamate** cerebrospinal fluid levels in rats  
and **glutamate** release from mouse cerebellum synaptosomes

AU Mattei, C.; Molgo, J.; Joseph, X.; Israe, M.; Bloy, C.

CS Institute of Medical Sciences, Department of Biomedical Sciences,  
University of Aberdeen, Aberdeen, UK

SO Neuroscience Letters (1999), 271(3), 183-186  
CODEN: NELED5; ISSN: 0304-3940

PB Elsevier Science Ireland Ltd.

DT Journal

LA English

AB It is well known that an excessive release of **glutamate** in the  
mammalian brain plays a major role in several neurol. diseases. Naftazone  
(Etioven®) is a currently used vasoprotectant drug that is metabolized  
in humans by reduction and glucuronidation. In the present study naftazone  
was found to decrease **glutamate** levels in the cerebrospinal  
fluid (CSF) of rats treated for 15 days, as determined by a chemiluminescent  
**glutamate** assay reaction. Naftazone and its glucuronide derivative  
also reduced resp. spontaneous and high K<sup>+</sup>-evoked **glutamate**  
release from mouse cerebellum synaptosomes. It is likely that naftazone  
and its glucuronide metabolite contribute in vivo to decrease  
**glutamate** levels in the CSF through their inhibitory actions on  
**glutamate** release.

IT 250585-74-1

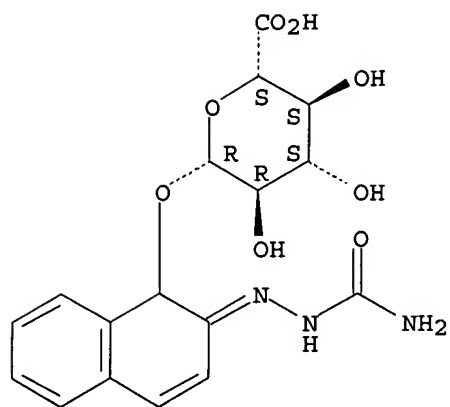
RL: BAC (Biological activity or effector, except adverse); BSU (Biological  
study, unclassified); BIOL (Biological study)  
(naftazone reduces **glutamate** cerebrospinal fluid levels in  
rats and **glutamate** release from mouse cerebellum  
synaptosomes)

RN 250585-74-1 CAPLUS

CN β-D-Glucopyranosiduronic acid, 2-[(aminocarbonyl)hydrazono]-1,2-  
dihydro-1-naphthalenyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
Double bond geometry unknown.

*See 1 Date per  
Applicants Exhibit A*



RE.CNT 8

THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 FILE 'REGISTRY' ENTERED AT 15:20:54 ON 05 AUG 2004  
L2 STRUCTURE UPLOADED  
1 S L1 SAM

L3 FILE 'REGISTRY' ENTERED AT 15:24:38 ON 05 AUG 2004  
L4 STRUCTURE UPLOADED  
L5 0 S L3 SAM  
6 S L3 FULL *→ sugar derivative*

L6 FILE 'CAPLUS' ENTERED AT 15:26:59 ON 05 AUG 2004  
L7 2 S L5 AND GLUTAMATE  
L8 0 S L5 AND NEURON  
L9 0 S L5 AND NMDA  
STRUCTURE UPLOADED  
S L9

L10 FILE 'REGISTRY' ENTERED AT 15:30:00 ON 05 AUG 2004  
0 S L9 SAM

L11 FILE 'CAPLUS' ENTERED AT 15:30:00 ON 05 AUG 2004  
0 S L10 SAM

FILE 'REGISTRY' ENTERED AT 15:30:18 ON 05 AUG 2004

=> s l9 full

FULL SEARCH INITIATED 15:30:31 FILE 'REGISTRY'  
FULL SCREEN SEARCH COMPLETED - 134 TO ITERATE

100.0% PROCESSED 134 ITERATIONS  
SEARCH TIME: 00.00.01

L12 0 SEA SSS FUL L9 *→ no sugar (0)*

0 ANSWERS